

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P855202

Luminaire Tested: SQ2-F-100U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855202
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-100U-050D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

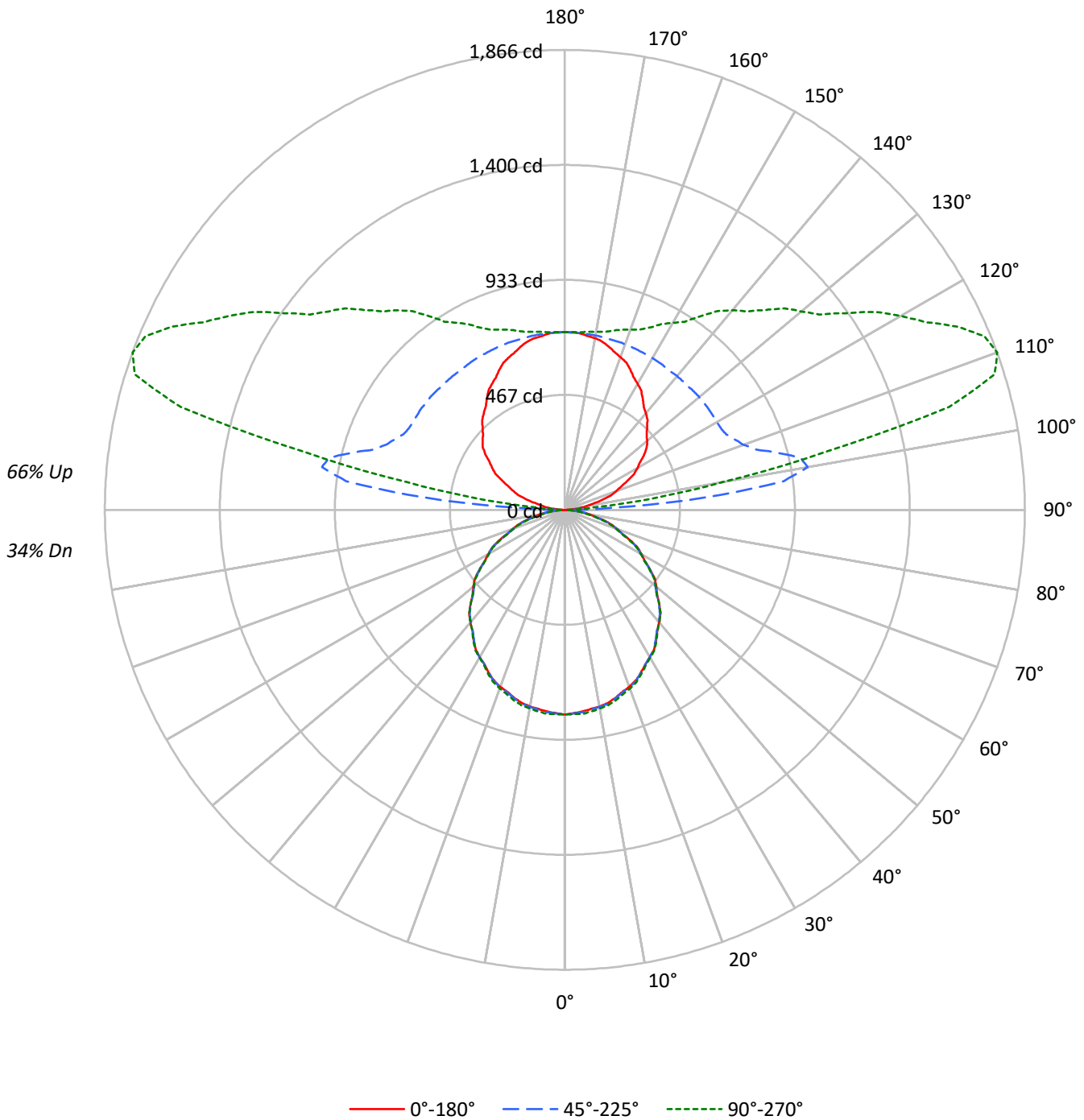
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6818.3 lumens
Efficiency: N/A
Efficacy: 135.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34				
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	37	36	35	29				
2	86	78	72	67	77	71	66	61	57	53	50	44	42	39	32	31	29	24				
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20				
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17				
5	65	54	46	40	59	49	42	37	40	34	31	31	27	24	23	20	18	15				
6	60	48	40	35	54	44	37	32	35	30	26	28	24	21	20	18	16	13				
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	19	16	14	11				
8	51	39	32	26	46	36	29	24	29	24	20	23	19	17	17	15	13	10				
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9				
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	15	12	10	8				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13411	13411	13411
5°	13316	13353	13462
10°	13285	13321	13414
15°	13203	13242	13374
20°	13125	13144	13261
25°	13003	13003	13083
30°	12870	12870	12913
35°	12713	12670	12759
40°	12547	12499	12547
45°	12351	12300	12351
50°	12167	12052	12082
55°	11882	11851	11786
60°	11583	11512	11438
65°	11240	11110	10980
70°	10579	10523	10310
75°	9956	9744	9457
80°	8842	8629	8312
85°	7132	6502	6076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12426 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	1.2
10°-20°	224.4	3.3
20°-30°	337.5	5.0
30°-40°	403.9	5.9
40°-50°	416.7	6.1
50°-60°	375.9	5.5
60°-70°	286.9	4.2
70°-80°	164.9	2.4
80°-90°	44.3	0.7
90°-100°	301.0	4.4
100°-110°	910.3	13.4
110°-120°	888.6	13.0
120°-130°	726.1	10.6
130°-140°	592.7	8.7
140°-150°	461.4	6.8
150°-160°	332.6	4.9
160°-170°	203.6	3.0
170°-180°	68.8	1.0
0°-30°	640.4	9.4
0°-40°	1044.3	15.3
0°-60°	1836.9	26.9
0°-90°	2333.1	34.2
90°-120°	2099.9	30.8
90°-150°	3880.2	56.9
90°-180°	4485.0	65.8
0°-180°	6818.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	822	833	824	825	831	78
15°	790	800	792	796	800	223
25°	730	738	730	731	734	336
35°	645	650	643	645	647	403
45°	541	544	539	540	541	417
55°	422	424	421	419	419	377
65°	294	293	291	289	287	289
75°	160	158	156	153	152	168
85°	38	36	35	32	33	45
90°	0	2	14	8	7	3
95°	37	118	568	210	132	44
105°	158	223	894	1697	1613	166
115°	282	336	723	1496	1757	279
125°	394	437	713	1181	1390	350
135°	472	522	708	1019	1146	365
145°	551	592	708	876	958	345
155°	628	649	713	786	816	289
165°	687	694	716	744	752	194
175°	718	718	720	725	723	68
180°	721	721	721	721	721	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	830.6	830.6	830.6	830.6	830.6
2.5°	825.2	834.9	827.0	828.8	829.7
5°	821.6	832.7	823.9	825.1	830.6
7.5°	814.8	826.8	817.1	819.2	825.4
10°	810.3	821.4	812.5	813.8	818.2
12.5°	803.0	814.1	805.3	807.4	811.9
15°	789.9	799.9	792.2	795.7	800.1
17.5°	774.7	785.4	776.8	779.8	783.6
20°	763.9	772.7	765.0	766.2	771.8
22.5°	750.3	759.1	752.3	752.7	757.3
25°	729.9	737.6	729.9	731.2	734.4
27.5°	706.6	713.3	706.6	707.9	710.7
30°	690.3	697.0	690.3	691.4	692.6
32.5°	672.2	678.0	671.3	672.5	675.4
35°	645.0	649.5	642.8	645.0	647.3
37.5°	616.1	619.4	613.8	614.9	617.0
40°	595.3	598.5	593.0	594.1	595.3
42.5°	574.4	576.9	571.3	572.4	574.4
45°	540.9	544.2	538.7	539.8	540.9
47.5°	507.0	509.0	504.3	503.4	505.4
50°	484.4	485.5	479.8	479.8	481.0
52.5°	459.9	461.0	457.2	455.4	456.5
55°	422.1	424.4	421.0	418.7	418.7
57.5°	384.1	386.1	381.8	380.7	380.5
60°	358.7	359.9	356.5	355.3	354.2
62.5°	333.4	333.6	330.2	329.1	328.0
65°	294.2	293.1	290.8	288.6	287.4
67.5°	250.3	251.5	249.2	245.6	245.6
70°	224.1	225.2	222.9	218.4	218.4
72.5°	198.7	198.0	196.7	193.1	191.3
75°	159.6	158.4	156.2	152.8	151.6
77.5°	120.4	119.3	118.1	113.8	114.8
80°	95.1	93.9	92.8	89.4	89.4
82.5°	72.4	70.4	69.3	65.9	65.9
85°	38.5	36.2	35.1	31.7	32.8
87.5°	10.9	10.4	11.8	8.8	8.6
90°	0.0	2.3	13.6	7.9	6.8
92.5°	12.7	51.2	183.8	60.9	43.9
95°	37.3	118.0	568.0	209.8	132.4
97.5°	72.2	150.3	895.1	592.3	360.7
100°	93.9	170.2	1000.2	966.9	649.3
102.5°	118.4	192.0	978.4	1356.2	1081.1
105°	158.4	222.6	893.8	1697.4	1613.3
107.5°	196.5	257.7	812.3	1731.1	1828.5
110°	221.7	280.4	771.6	1688.7	1865.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	246.1	303.1	747.1	1617.3	1841.2
115°	281.7	335.9	722.9	1495.9	1757.0
117.5°	317.0	368.4	714.3	1382.2	1649.5
120°	340.5	389.2	711.6	1315.9	1572.6
122.5°	362.2	408.3	711.6	1257.6	1494.7
125°	393.7	436.8	712.7	1181.3	1390.5
127.5°	419.3	464.0	711.6	1123.9	1302.2
130°	435.6	482.1	711.6	1090.9	1252.4
132.5°	450.1	497.4	710.7	1060.7	1209.9
135°	471.8	521.6	708.2	1018.8	1146.0
137.5°	496.0	543.3	708.2	974.0	1091.9
140°	511.4	557.8	708.2	944.9	1056.7
142.5°	526.8	571.5	707.3	918.3	1016.0
145°	551.0	591.9	708.2	876.4	958.3
147.5°	575.2	610.0	709.6	841.8	904.7
150°	590.6	622.6	710.5	822.6	875.7
152.5°	605.1	633.6	711.4	806.1	849.4
155°	628.0	648.9	712.7	785.8	815.7
157.5°	647.8	664.9	714.1	770.9	791.7
160°	659.5	674.0	715.0	761.7	777.2
162.5°	671.3	682.2	715.9	753.6	766.4
165°	686.7	694.5	716.1	743.5	752.3
167.5°	699.8	703.9	717.5	735.7	739.4
170°	707.1	709.3	718.4	732.0	733.1
172.5°	711.6	712.9	718.4	728.3	728.6
175°	718.4	718.4	719.5	725.2	722.9
177.5°	721.5	720.6	719.7	722.5	720.6
180°	720.6	720.6	720.6	720.6	720.6



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.33	16.07	16.41	17.15	18.63	15.25	15.99	16.33	17.07	18.55
	3H	17.10	17.76	18.19	18.85	20.35	16.98	17.64	18.07	18.73	20.23
	4H	17.75	18.38	18.85	19.47	20.98	17.60	18.23	18.70	19.32	20.82
	6H	18.21	18.79	19.32	19.89	21.40	18.03	18.61	19.14	19.70	21.22
	8H	18.35	18.90	19.46	20.01	21.52	18.14	18.70	19.26	19.81	21.32
	12H	18.42	18.94	19.54	20.05	21.58	18.19	18.72	19.31	19.82	21.36
4H	2H	15.86	16.49	16.97	17.58	19.09	15.80	16.43	16.91	17.52	19.03
	3H	17.84	18.37	18.95	19.48	21.00	17.73	18.26	18.84	19.37	20.89
	4H	18.62	19.11	19.74	20.21	21.75	18.48	18.96	19.60	20.07	21.61
	6H	19.21	19.62	20.33	20.75	22.28	19.03	19.44	20.15	20.57	22.10
	8H	19.39	19.78	20.52	20.90	22.45	19.19	19.58	20.31	20.70	22.24
	12H	19.49	19.84	20.63	20.97	22.52	19.26	19.61	20.40	20.74	22.29
8H	4H	18.86	19.25	19.99	20.37	21.92	18.73	19.12	19.86	20.24	21.79
	6H	19.57	19.89	20.72	21.06	22.60	19.41	19.73	20.55	20.89	22.43
	8H	19.84	20.12	20.99	21.26	22.82	19.65	19.93	20.80	21.07	22.63
	12H	20.00	20.25	21.16	21.39	22.99	19.77	20.02	20.93	21.16	22.76
12H	4H	18.85	19.20	19.99	20.33	21.88	18.73	19.08	19.87	20.21	21.76
	6H	19.61	19.90	20.77	21.04	22.60	19.46	19.74	20.61	20.88	22.44
	8H	19.90	20.15	21.06	21.29	22.89	19.72	19.96	20.87	21.10	22.70